



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT: James R. Crawford

SERIAL NO.: 10/700,377

GROUP ART UNIT:

FILED: November 3, 2003

EXAMINER:

FOR: "Bi-Directional Thruster Pig Apparatus and Method of Utilizing Same"

ATTORNEY DOCKET NO.: C03209US (71768.2C2)

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**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Enclosed is a form PTO/SB/08a. Copies of these references are enclosed.

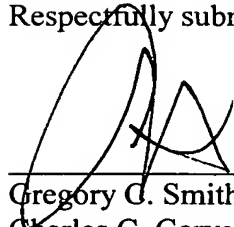
Applicant respectfully submits that the application is in condition for allowance. A Notice of Allowance is hereby respectfully requested.

Should the Examiner feel that a telephone conference would advance the prosecution of this application, he is encouraged to contact the undersigned at the telephone number listed below.

Applicant respectfully petitions the Commissioner for any extension of time necessary to render this paper timely.

**No fee is required to submit this form.** However, if a fee is necessary, please charge any additional required fees to deposit Account No. 50-0694.

Respectfully submitted,



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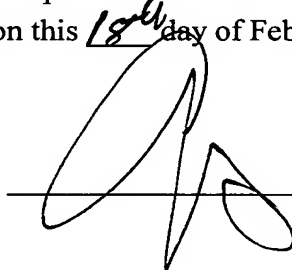
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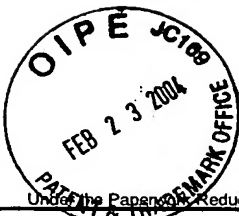
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**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 18<sup>th</sup> day of February, 2004.





PTO/SB/08A (08-03)

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 1 of 3

**Complete if Known**

Application Number	
Filing Date	11-03-2003
First Named Inventor	James R. Crawford
Art Unit	
Examiner Name	
Attorney Docket Number	C03209US (71768.2C2)

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- 712,486	11-04-1902	Black	
		US- 712,487	11-04-1902	Black	
		US- 712,488	11-04-1902	Black	
		US- 712,901	11-04-1902	Black	
		US- 879,822	02-18-1908	Karns	
		US- 1,281,756	10-15-1918	Black	
		US- 1,801,294	04-21-1931	Sutton	
		US- 1,913,365	06-13-1933	Bailey	
		US- 2,887,118	05-19-1959	Loeffler et al.	
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		US- 3,402,777	09-24-1968	Watson	
		US- 3,467,196	09-16-1969	Kinsman	
		US- 3,495,546	02-17-1970	Brown et al.	
		US- 3,525,401	08-25-1970	Hanson et al.	
		US- 3,763,896	10-09-1973	Horne et al.	
		US- 3,729,057	04-24-1973	Werner	
		US- 3,827,487	4,073,302	Jackson et al.	

**FOREIGN PATENT DOCUMENTS**

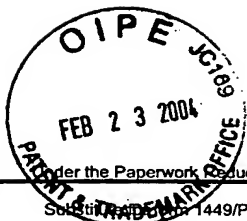
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
		0187599	07-16-1986	Wittrisch		
		894117	04-18-1962	Mooney		
		1132503	11-06-1968	Esso Production Res		
		402128094A	5-16-1990	Negishi		
		05161884	06-29-1993			
		94/23174	10-13-1994	Stoltz		

Examiner Signature		Date Considered	
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Sheet 2 of 3

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		Number-Kind Code <sup>2</sup> (if known)			
		US- 4,073,302	894117	Jones	
		US- 4,360,290	11-23-1982	Ward	
		US- 4,585,061	04-29-1986	Lyons, Jr. et al.	
		US- 4,729,429	03-08-1988	Wittrisch	
		US- 4,756,510	07-12-1988	Klamm et al.	
		US- 4,852,391	08-01-1989	Ruch et al.	
		US- 4,919,204	04-24-1990	Baker et al.	
		US- 4,941,773	07-17-1990	Vergouw	
		US- 5,069,285	12-03-1991	Nuckols	
		US- 5,180,009	01-19-1993	Sneed	
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		US- 5,429,194	07-04-1995	Nice	
		US- 5,445,224	08-29-1995	Comeaux	

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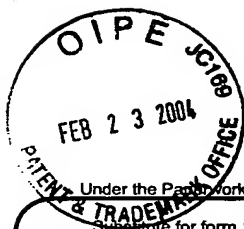
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		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
		96/34173	10-31-1996	Murray		

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		US- 5,447,200	09-05-1995	Dedora et al.	
		US- 5,494,103	02-27-1996	Surjaatmadja et al.	
		US- 5,497,807	03-12-1996	Rogers	
		US- 5,566,764	10-22-1996	Elliston	
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		US- 5,695,009	12-09-1997	Hipp	
		US- 5,704,393	01-06-1998	Connell et al.	
		US- 5,992,250	11-30-1999	Kluth et al.	
		US- 6,250,387	06-26-2001	Carmichael et al.	
		US- 6,260,617	07-17-2001	Baugh	
		US- 6,315,498	11-13-2001	Baugh et al.	
		US- 6,343,657	02-05-2002	Baugh et al.	
		US- 6,561,280	05-13-2003	Baugh et al.	
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